

Carbohydrates

Biology

From monosaccharides to polysaccharides, and how structure fits function.

The polysaccharides and their roles.

Polysaccharide	Made of	Function
Starch (amylose)	α -glucose, 1-4	Plant storage; coiled
Starch (amylopectin)	α -glucose, 1-4 and 1-6	Branched; faster hydrolysis
Glycogen	α -glucose, highly branched	Animal storage
Cellulose	β -glucose, alternating	Structural; straight chains
Chitin	Modified β -glucose	Fungal walls, exoskeletons

Cellulose and starch are both glucose polymers. The α/β difference alone makes one digestible and the other not.